

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN THE APPLICATION OF:

FRANK P. UCKERT ET. AL.

CASE NO.: PE0667USDIV

APPLICATION NO.: 10/809,737

CONFIRMATION NO.: 8176

GROUP ART UNIT: 1714

EXAMINER: UNKNOWN

FILED: MARCH 25, 2004

FOR: ELECTROACTIVE FLUORENE COPOLYMERS AND DEVICES MADE WITH
SUCH POLYMERS**INFORMATION DISCLOSURE STATEMENT**Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In compliance with 37 CFR 1.97 and 1.98, Applicants bring to the attention of the U.S. Patent and Trademark Office information listed on the enclosed PTO/SB/08. A copy of the information is also enclosed.

Benefit of the earlier filing date of U.S. Patent Application No. 10/137,898, filed May 2, 2002 is claimed under 35 U.S.C. 120 for the above-referenced application and only copies of information not previously made of record in the parent are enclosed.

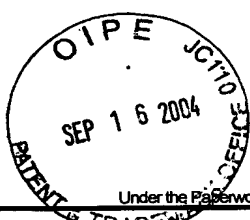
Should any fee be required in connection with the filing of this Information Disclosure Statement, please charge such fee to Deposit Account No. 04-1928 (E. I. du Pont de Nemours and Company).

Respectfully submitted,

MARY ANN CAPRIA
ATTORNEY FOR APPLICANTS
Registration No.: 32,659
Telephone: (302) 992-3749
Facsimile: (302) 892-7949Dated: 9/14/2004

Enclosures

BEST AVAILABLE COPY



PTO/SB/08A (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of 2

Complete if Known

| | |
|------------------------|------------------------|
| Application Number | 10/809,737 |
| Filing Date | March 25, 2004 |
| First Named Inventor | Frank P. Uckert et al. |
| Group Art Unit | 1714 |
| Examiner Name | Unknown |
| Attorney Docket Number | PE0667USDIV |

U.S. PATENT DOCUMENTS

| Examiner Initials * | Cite No. ¹ | Document Number | | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
|------------------------|--------------------------|-----------------|-----------------------------------|--------------------------------|--|---|
| | | Number - | Kind Code ² (if known) | | | |
| | | US - | 4,508,639 | 04-02-1985 | Camps et al. | |
| | | US - | 5,621,131A | 04-15-1997 | Kreuder et al. | |
| | | US - | 5,814,244A | 09-29-1998 | Kreuder et al. | |
| | | US - | 5,821,002A | 10-13-1998 | Ohnishi et al. | |
| | | US - | 5,856,434A | 01-05-1999 | Stern et al. | |
| | | US - | 5,962,631A | 10-05-1999 | Woo et al. | |
| | | | 5,900,327A | 05-04-1999 | Pei et al. | |
| | | US - | 6,309,763 B1 | 10-30-2001 | Woo et al. | |
| | | US - | 6,353,083 B1 | 03-05-2002 | Inbasekaran et al. | |
| | | US - | 6,541,602 B1 | 04-01-2003 | Spreitzer et al. | |
| | | US - | 6,653,438 B1 | 11-25-2003 | Spreitzer et al. | |
| | | US - | 6,605,373 B1 | 08-12-2003 | Woo et al. | |
| | | US - | | | | |
| | | US - | | | | |
| | | US - | | | | |
| | | US - | | | | |
| | | US - | | | | |
| | | US - | | | | |
| | | US - | | | | |
| | | US - | | | | |

FOREIGN PATENT DOCUMENTS

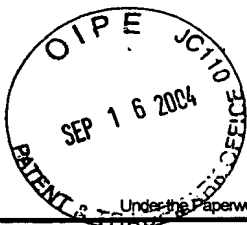
| Examiner Initials * | Cite No. ¹ | Foreign Patent Document | | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T ₆ |
|------------------------|--------------------------|--------------------------|---|--------------------------------|--|---|--------------------------|
| | | CountryCode ³ | Number ⁴ Kind Code ⁵ (if known) | | | | |
| | | | EP 0 259 229 B1 | 09-02-1987 | Makromolekulare Chemie | | <input type="checkbox"/> |
| | | | EP 0 956 312 B1 | 01-29-1998 | JSR Corporation | | <input type="checkbox"/> |
| | | | WO 01/07502 A2 | 02-01-2001 | Cambridge Display Techn | | <input type="checkbox"/> |
| | | | | | | | <input type="checkbox"/> |
| | | | | | | | <input type="checkbox"/> |
| | | | | | | | <input type="checkbox"/> |
| | | | | | | | <input type="checkbox"/> |
| | | | | | | | <input type="checkbox"/> |
| | | | | | | | <input type="checkbox"/> |

Examiner
Signature

Date
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



PTO/SB/08B (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 2

of 2

Complete if Known

| | |
|------------------------|------------------------|
| Application Number | 10/809,737 |
| Filing Date | March 25, 2004 |
| First Named Inventor | Frank P. Uckert et al. |
| Group Art Unit | 1714 |
| Examiner Name | Unknown |
| Attorney Docket Number | PE0667USDIV |

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

| Examiner Initials * | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ² |
|------------------------|--------------------------|---|--------------------------|
| | | DE 19846767, Partially conjugated polymer useful as an organic semiconductor or an electroluminescence material, and for display elements in television monitor and illumination technology contains fluorene building units, Abstract, 06-13-2000, Aventis Res & Technologies GmbH | <input type="checkbox"/> |
| | | JP 2000319272, (Diarylamino) furan analogues with improved stability, useful pharmaceutical intermediates and electron hole transport or photosensitive materials, Abstract, 04-21-2001, Tosoh Corp | <input type="checkbox"/> |
| | | JP 08157575, Carrier transport polymers - useful as carrier transport materials in organic thin film electroluminescence devices, Abstract, 10-25-1996, Toppan Printing Co. Ltd. | <input type="checkbox"/> |
| | | JP 2000143778, Display element such as cathode ray tube and light emitting diode, comprises specified light emitting compound as color developing materials, Abstract, 10-06-2000, Samsung Denkan KK | <input type="checkbox"/> |
| | | JP 10273522, Production of phenylene group-containing copolymers - comprises copolymerizing phenylene group-containing compounds in presence of catalysts containing transition metal compounds, Abstract, 01-13-1999, Nippon Gosei Gomu KK | <input type="checkbox"/> |
| | | JP 10273521, Production of phenylene group-containing copolymers - comprises copolymerizing phenylene group-containing compounds in presence of catalysts containing transition metal compounds, Abstract, 12-23-1999, Nippon Gosei Gomu KK | <input type="checkbox"/> |
| | | JP 03028220, Electrochromic elements for display or optical shield glass - contg. film of polyphenylene polymer derived from fluorene, Abstract, 09-28-1993, Idemitsu Kosan Co. Ltd. | <input type="checkbox"/> |
| | | JP 03017120, Polyphenylene polymers used as conductive material or display material are produced by chemical or electrochemical-oxidative polymerizing of specified fluorene derivs, Abstract, 09-28-1993, Idemitsu Kosan Co. Ltd. | <input type="checkbox"/> |
| | | JP 02269734, New polyphenylene-type polymer prepd. By oxidn. Polymerization of fluorene derive., Abstract, 09-28-1993, Idemitsu Kosan Co. Ltd. | <input type="checkbox"/> |
| | | KR 99057430, Fluorene-based alternating statistical copolymer containing multi-luminescence groups and electroluminescence device using the same, Abstract, 07-15-1999, Korea Adv Inst Sci & Technology | <input type="checkbox"/> |
| | | | <input type="checkbox"/> |

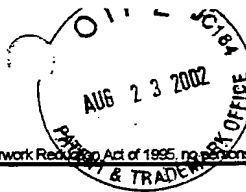
Examiner
Signature

Date
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



PTO/SB/08A (10-01)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
It responds to a collection of information unless it contains a valid OMB control number.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

| | | | | | |
|--|---|----|---|---------------------------------|------------------------|
| Substitute for form 1449A/PTO | | | | <i>Complete if Known</i> | |
| INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i> | | | | Application Number | 10/137,898 |
| | | | | Filing Date | MAY 2, 2002 |
| | | | | First Named Inventor | FRANK P. UCKERT ET AL. |
| | | | | Group Art Unit | 1711 |
| | | | | Examiner Name | UNKNOWN |
| | | | | Attorney Docket Number | PE0667 US NA |
| Sheet | 1 | of | 1 | | |

| U.S. PATENT DOCUMENTS | | | | | | |
|------------------------|--------------------------|--|-------------|--------------------------------|--|---|
| Examiner Initials * | Cite No. ¹ | Document Number | | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| | | Number - Kind Code ² (if known) | | | | |
| <i>Jac</i> | | US - | 5,777,070 A | 07/07/1998 | INBASEKARAN ET AL. | |
| <i>Lec</i> | | US - | 5,998,045 A | 12/07/1999 | CHEN ET AL. | |
| | | US - | | | | |
| | | US - | | | | |
| | | US - | | | | |
| | | US - | | | | |
| | | US - | | | | |
| | | US - | | | | |
| | | US - | | | | |
| | | US - | | | | |
| | | US - | | | | |
| | | US - | | | | |
| | | US - | | | | |
| | | US - | | | | |
| | | US - | | | | |
| | | US - | | | | |
| | | US - | | | | |
| | | US - | | | | |
| | | US - | | | | |

RECEIVED

AUG 26 2002


TC 1700

TO 1700 MAIL ROOM

SEP - 5 2002

RECEIVED

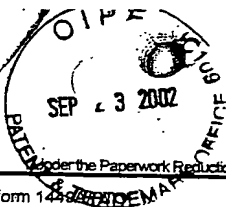
[illegible]

| | | | |
|-----------------------|---|--------------------|----------|
| Examiner Signature |  | Date Considered | 01/09/04 |
|-----------------------|---|--------------------|----------|

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 801.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols asindicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

(use as many sheets as necessary)

| | | | |
|-------|---|--|---|
| Sheet | 1 | | 1 |
|-------|---|--|---|

Complete if Known

| | |
|------------------------|------------------------|
| Application Number | 10/137,898 |
| Filing Date | MAY 2, 2002 |
| First Named Inventor | FRANK P. UCKERT ET AL. |
| Group Art Unit | 1711 |
| Examiner Name | UNKNOWN |
| Attorney Docket Number | PE0667 US NA |

U.S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

[illegible]

Examiner
Signature

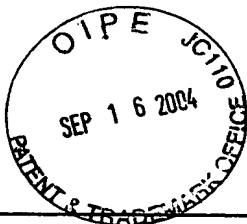
Date Considered

61/02/04

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the tow-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols asindicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:** Assistant Commissioner for Patents, Washington, DC 20231.



Notice of References Cited

Application/Control No.
10/137,898

Applicant(s)/Patent Under Reexam
Uckert et al.

Examiner
Ling-Siu Choi

Art Unit
1713

Page 1 of 1

U.S. PATENT DOCUMENTS

| | Document Number Country Code-Number-Kind Code | Date MM-YYYY ¹ | Name | Classification ² | |
|---|--|------------------------------|----------------|-----------------------------|-----|
| A | 5,621,131 | 4/1997 | Kreuder et al. | 558 | 46 |
| B | 5,962,631 | 10/1999 | Woo et al. | 528 | 397 |
| C | | | | | |
| D | | | | | |
| E | | | | | |
| F | | | | | |
| G | | | | | |
| H | | | | | |
| I | | | | | |
| J | | | | | |
| K | | | | | |
| L | | | | | |
| M | | | | | |

FOREIGN PATENT DOCUMENTS

| | Document Number Country Code-Number-Kind Code | Date MM-YYYY ¹ | Country | Name | Classification ² | |
|---|--|------------------------------|---------|------|-----------------------------|--|
| N | | | | | | |
| O | | | | | | |
| P | | | | | | |
| Q | | | | | | |
| R | | | | | | |
| S | | | | | | |
| T | | | | | | |

NON-PATENT DOCUMENTS

| | Include, as applicable: Author, Title, Date, Publisher, Edition or Volume, Pertinent Pages |
|---|--|
| U | Miller et al., Nonlinear Optics, 20, 269-295(1999). |
| V | |
| W | |
| X | |

* A copy of this reference is not being furnished with this Office action. See MPEP § 707.05(a). ¹ Dates in MM-YYYY format are publication dates. ² Classifications may be U.S. or foreign.

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ BLACK BORDERS
- ☒ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
- ☐ FADED TEXT OR DRAWING
- ☐ BLURRED OR ILLEGIBLE TEXT OR DRAWING
- ☐ SKEWED/SLANTED IMAGES
- ☐ COLOR OR BLACK AND WHITE PHOTOGRAPHS
- ☒ GRAY SCALE DOCUMENTS
- ☒ LINES OR MARKS ON ORIGINAL DOCUMENT
- ☐ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
- ☐ OTHER: _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.